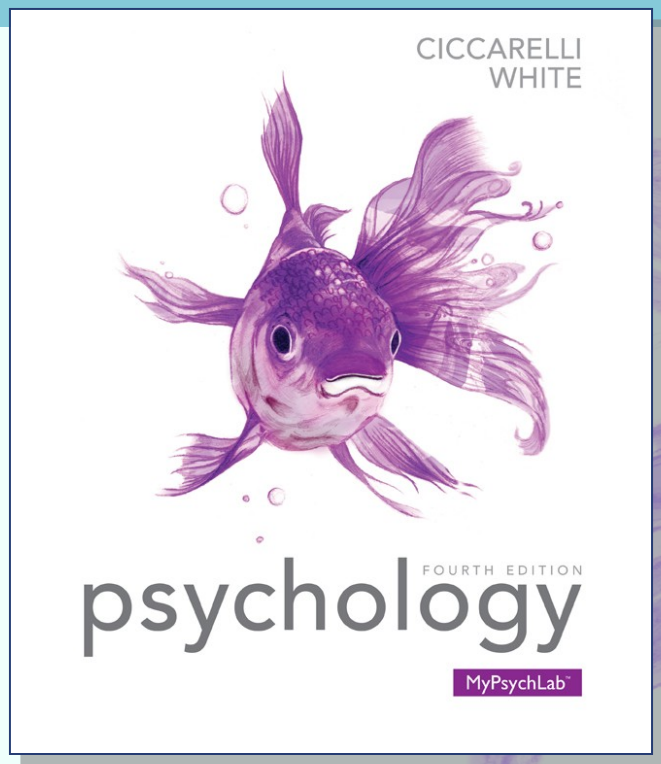
# Chapter 9

## motivation and emotion



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# Learning Objective Menu

**9.1** How do psychologists define motivation, and what are the key elements of the early instinct and drive-reduction approaches to motivation?

**9.2** What are the characteristics of the three types of needs?

**9.3** What are the key elements of the arousal and incentive approaches to motivation?

**9.4** How do Maslow's hierarchy of needs and self-determination theories explain motivation?

**9.5** What happens in the body to cause hunger, and how do social factors influence a person's experience of hunger?

**9.6** What are some biological, social, and cultural factors that contribute to obesity?

**9.7** What are the three elements of emotion?

**9.8** How do the James-Lange and Cannon-Bard theories of emotion differ?

**9.9** What are the key elements in cognitive arousal theory, the facial feedback hypothesis, and the cognitive-mediational theory of emotion?

**9.10** What are the stages of the GTD method?

# Motivation

LO 9.1 Instinct and Drive-Reduction Approaches to Motivation

- Motivation: the process by which activities are started, directed, and continued so that physical or psychological needs or wants are met
  - extrinsic motivation: a person performs an action because it leads to an outcome that is separate from or external to the person
  - intrinsic motivation: a person performs an action because the act is fun, challenging, or satisfying in an internal manner

# Instinct Approaches to Motivation

LO Instinct and Drive-Reduction Approaches to Motivation

- Instincts: the biologically determined and innate patterns of behavior that exist in both people and animals
- Instinct approach: approach to motivation that assumes people are governed by instincts similar to those of animals

# Drive-Reduction Theory of Motivation

LO 9.1 Instinct and Drive-Reduction Approaches to Motivation

- Need: a requirement of some material (such as food or water) that is essential for survival of the organism
- Drive: a psychological tension and physical arousal arising when there is a need that motivates the organism to act in order to fulfill the need and reduce the tension

# Drive-Reduction Theory of Motivation

LO 9.1 Instinct and Drive-Reduction Approaches to Motivation

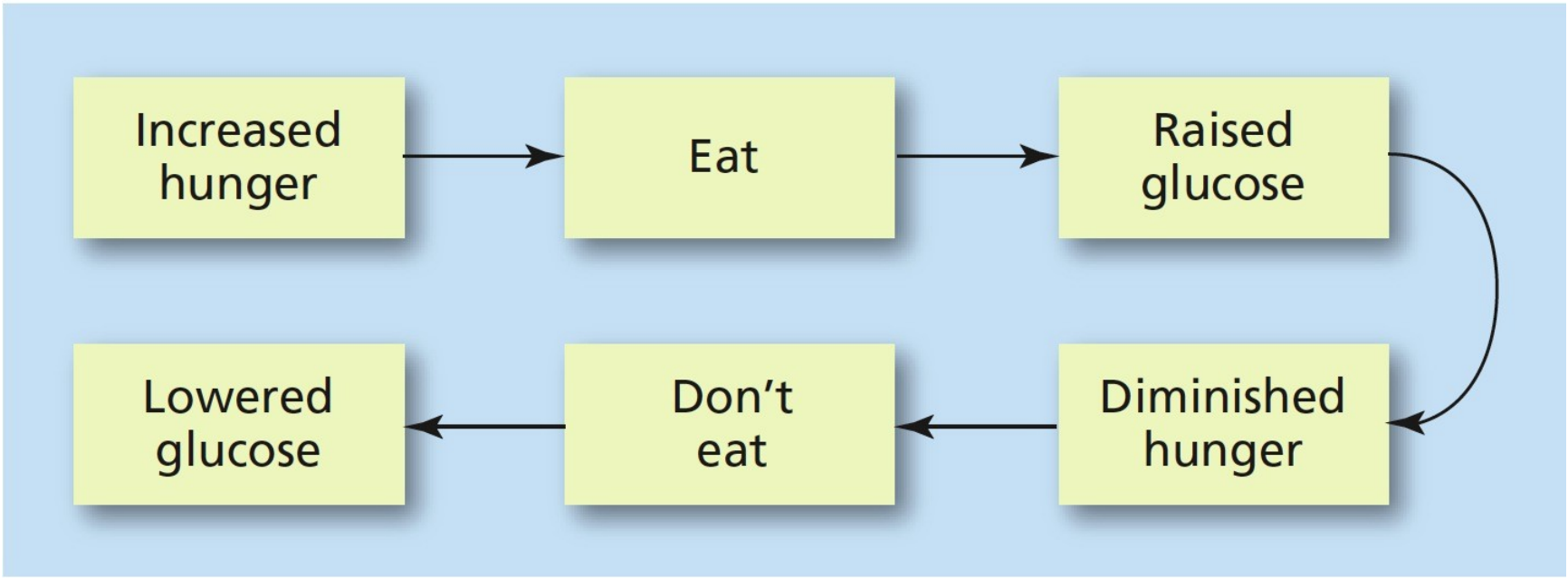
- Drive-reduction theory: assumes behavior arises from physiological needs that cause internal drives to push the organism to satisfy the need and reduce tension and arousal

# Drive-Reduction Theory of Motivation

LO 9.1 Instinct and Drive-Reduction Approaches to Motivation

- Primary drives: involve needs of the body such as hunger and thirst
- Acquired (secondary) drives: learned through experience or conditioning, such as the need for money or social approval
- Homeostasis: the tendency of the body to maintain a steady state

**Figure 9.1 Homeostasis**
In homeostasis, the body maintains balance in the body's physical states. For example, this diagram shows how increased hunger (a state of imbalance) prompts a person to eat. Eating increases the level of glucose (blood sugar), causing the feelings of hunger to reduce. After a period without eating, the glucose levels become low enough to stimulate the hunger drive once again, and the entire cycle is repeated.



# Three Types of Needs

LO 9.2 Three Types of Needs

- Need for achievement (nAch): involves a strong desire to succeed in attaining goals—not only realistic ones, but also challenging ones
- Need for affiliation (nAff): the need for friendly social interactions and relationships with others
- Need for power (nPow): the need to have control or influence over others

# Arousal Approach to Motivation

LO 9.3 Arousal and Incentive Approaches to Motivation

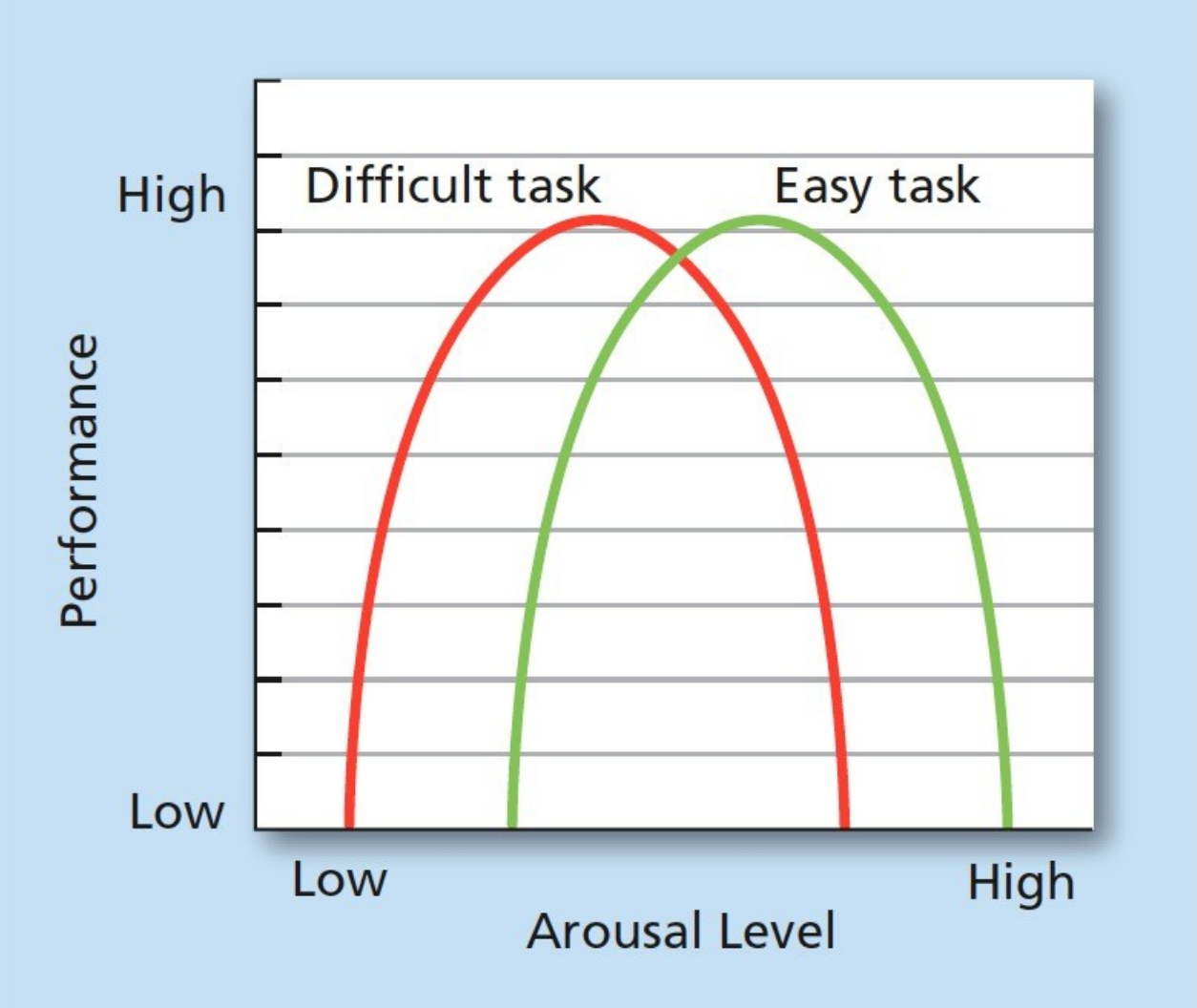
- Stimulus motive: a motive that appears to be unlearned but causes an increase in stimulation, such as curiosity
- Arousal theory: theory of motivation in which people are said to have an optimal (best or ideal) level of tension that they seek to maintain by increasing or decreasing stimulation

# Arousal Approach to Motivation

LO 9.3 Arousal and Incentive Approaches to Motivation

- Yerkes-Dodson law: law stating performance is related to arousal; moderate levels of arousal lead to better performance than do levels of arousal that are too low or too high
  - This effect varies with the difficulty of the task
    - easy tasks require a high-moderate level
    - more difficult tasks require a low-moderate level

**Figure 9.2 Arousal and Performance**
The optimal level of arousal for task performance depends on the difficulty of the task. We generally perform easy tasks well if we are at a high–moderate level of arousal (green) and accomplish difficult tasks well if we are at a low–moderate level (red).



# Arousal Approach to Motivation

LO 9.3 Arousal and Incentive Approaches to Motivation

- Sensation seeker: one who needs more arousal than the average person

## Table 9.1

## Sample Items From the Zuckerman-Kuhlman Personality Questionnaire

| SCALE ITEM | SENSATION SEEKING |
|---|---|
| I sometimes do "crazy" things just for fun. | High |
| I prefer friends who are excitingly unpredictable. | High |
| I am an impulsive person. | High |
| Before I begin a complicated job, I make careful plans. | Low |
| I usually think about what I am going to do before doing it. | Low |

*Source:* Adapted from Zuckerman, M. (2002).

# Incentive Approaches to Motivation

LO 9.3 Arousal and Incentive Approaches to Motivation

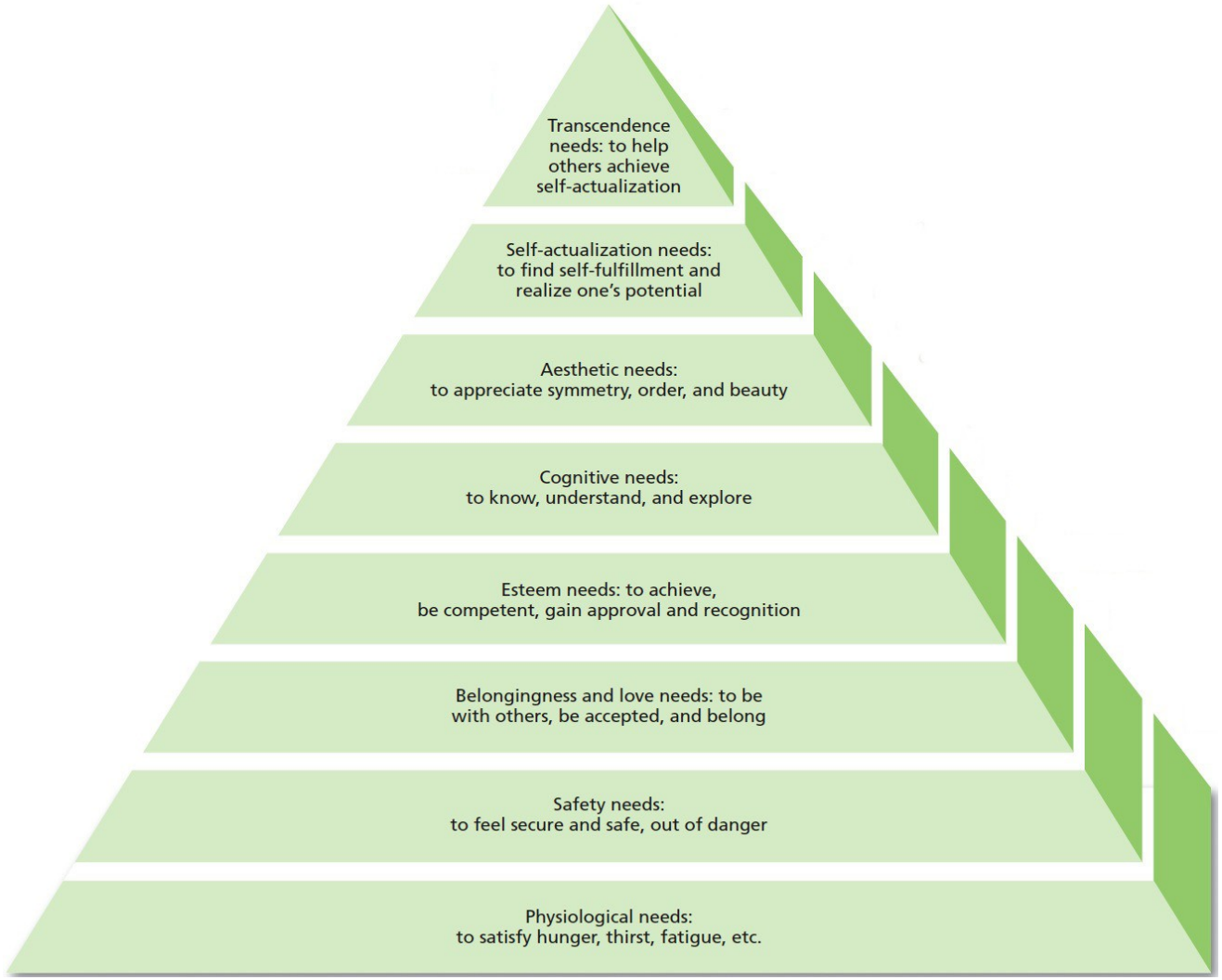
- Incentives: things that attract or lure people into action
- Incentive approaches: theories of motivation in which behavior is explained as a response to the external stimulus and its rewarding properties

# Maslow's Hierarchy of Needs

LO 9.4 Maslow's Hierarchy of Needs

- Self-actualization: the point at which people have sufficiently satisfied the lower needs and achieved their full human potential
  - seldom reached
- Peak experiences: times in a person's life during which self-actualization is temporarily achieved

**Figure 9.3 Maslow's Hierarchy of Needs**
Maslow proposed that human beings must fulfill the more basic needs, such as physical and security needs, before being able to fulfill the higher needs of self-actualization and transcendence.



# Self-Determination Theory of Motivation

LO 9.4 Maslow's Hierarchy of Needs

- Self-determination theory (SDT): the social context of an action has an effect on the type of motivation existing for the action
- Intrinsic motivation: type of motivation in which a person performs an action because the act itself is rewarding or satisfying in some internal manner

# Hunger: Bodily Causes

LO 9.5 Bodily Causes of Hunger and Social Factors Influencing Hunger

- Insulin and glucagon: hormones secreted by the pancreas to control levels of fats, proteins, and carbohydrates in the bloodstream
  - insulin reduces the level of glucose in the bloodstream
  - glucagon increases the level of glucose in the bloodstream
- Leptin: hormone that signals the hypothalamus that the body has had enough food and reduces the appetite

# Hunger: Bodily Causes

LO 9.5 Bodily Causes of Hunger and Social Factors Influencing Hunger

- Hypothalamus plays role in hunger
  - responds to levels of glucose and insulin in the body
  - leptin: hormone that signals the hypothalamus that the body has had enough food and reduces the appetite while increasing the feeling of being full

# Hunger: Bodily Causes

LO 9.5 Bodily Causes of Hunger and Social Factors Influencing Hunger

- Weight set point: the particular level of weight that the body tries to maintain
- Basal metabolic rate (BMR): the rate at which the body burns energy when the organism is resting

Table 9.2

## Average Basal Metabolic Rates for a Female and Male

| AGE RANGE | AGES 10–18 | AGES 19–30 | AGES 31–60 | AGES 61–80 |
|---|---|---|---|---|
| Female ($5\frac{1}{2}$ ft.) | 1,770* | 1,720 | 1,623 | 1,506 |
| Male (6 ft.) | 2,140 | 2,071 | 1,934 | 1,770 |

*Numbers in the table represent the number of calories a person needs to consume each day to maintain body weight (without exercise).

# Hunger: Social Causes

LO 9.5 Bodily Causes of Hunger and Social Factors Influencing Hunger

- Social cues for when meals are to be eaten
  - Cultural customs
  - Food preferences
  - Use of food as a comfort device or escape from unpleasantness
    - Some people may respond to the anticipation of eating by producing an insulin response

# Obesity

LO 9.6 Some factors creating obesity

- Obesity: the body weight of a person is 20 percent or more over the ideal body weight for that person's height (actual percents vary across definitions)
  - biological causes include heredity, hormones, and slowing metabolism with age
  - overeating is a major factor as food supplies stabilize in developing countries and Western-culture lifestyles are adopted

**Figure 9.4 Obese Laboratory Rat**
The rat on the left has reached a high level of obesity because its ventromedial hypothalamus has been deliberately damaged in the laboratory. The result is a rat that no longer receives signals of being satiated, and so the rat continues to eat and eat and eat.

# Elements of Emotion

LO 9.7 Three Elements of Emotion

- Emotion: the "feeling" aspect of consciousness characterized by:
  - certain physical arousal
  - certain behavior that reveals the emotion to the outside world
  - inner awareness of feelings

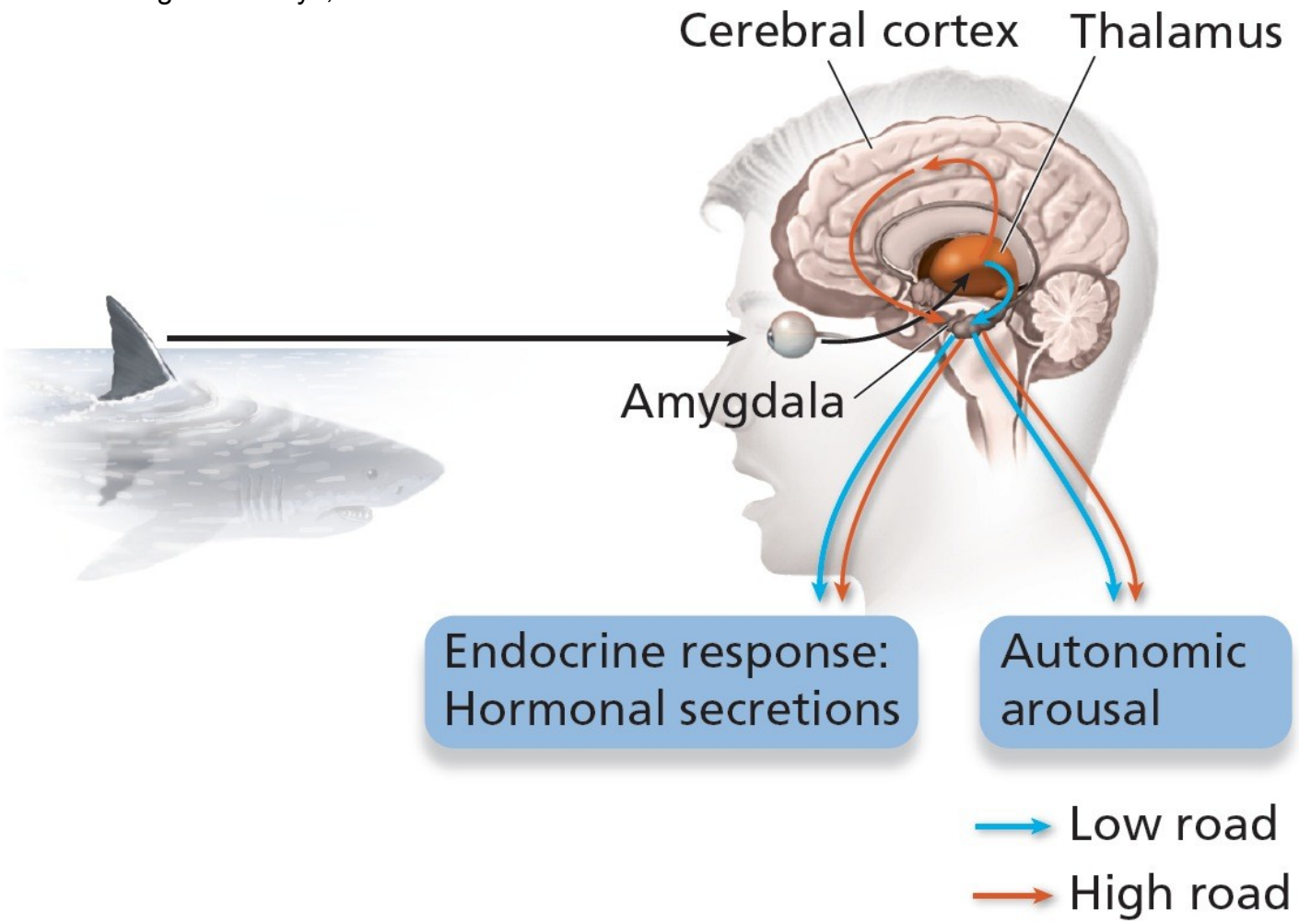
# Elements of Emotion

LO 9.7 Three Elements of Emotion

- Which parts of the brain are involved in various aspects of emotion?
  - The amygdala
    - the amygdala is a complex structure with many different nuclei and subdivisions, whose roles have been investigated primarily through studies of fear conditioning
    - emotional stimuli travel to the amygdala by both a fast, crude “low road” (subcortical) and a slower but more involved cortical “high road”

**Figure 9.5 The "Low Road" and "High Road"**

When we are exposed to an emotion-provoking stimulus (such as a shark), the neural signals travel by two pathways to the amygdala. The "low road" is the pathway underneath the cortex and is a faster, simpler path, allowing for quick responses to the stimulus, sometimes before we are consciously aware of the nature of the stimulus. The "high road" uses cortical pathways and is slower and more complex, but it allows us to recognize the threat and, when needed, take more conscious control of our emotional responses. In this particular example, the low road shouts, "Danger!" and we react before the high road says, "It's a shark!"



# Elements of Emotion

LO 9.7 Three Elements of Emotion

- Which parts of the brain are involved in various aspects of emotion?
  - other subcortical and cortical areas
    - hemisphere
    - frontal lobes
    - anterior cingulate cortex
    - lateral orbitofrontal cortex;

# Elements of Emotion

LO 9.7 Three Elements of Emotion

- Facial expressions can vary across different cultures
  - seem to be universal
  - display rules
- Labeling Emotion
  - Interpreting the subjective feeling by giving it a label

**Figure 9.6 Facial Expressions of Emotion**
Facial expressions appear to be universal. For example, these faces are consistently interpreted as showing (a) anger, (b) fear, (c) disgust, (d) happiness, (e) surprise, and (f) sadness by people of various cultures from all over the world. Although the situations that cause these emotions may differ from culture to culture, the expression of particular emotions remains strikingly the same.

a. 

b. 

c. 

d. 

e. 

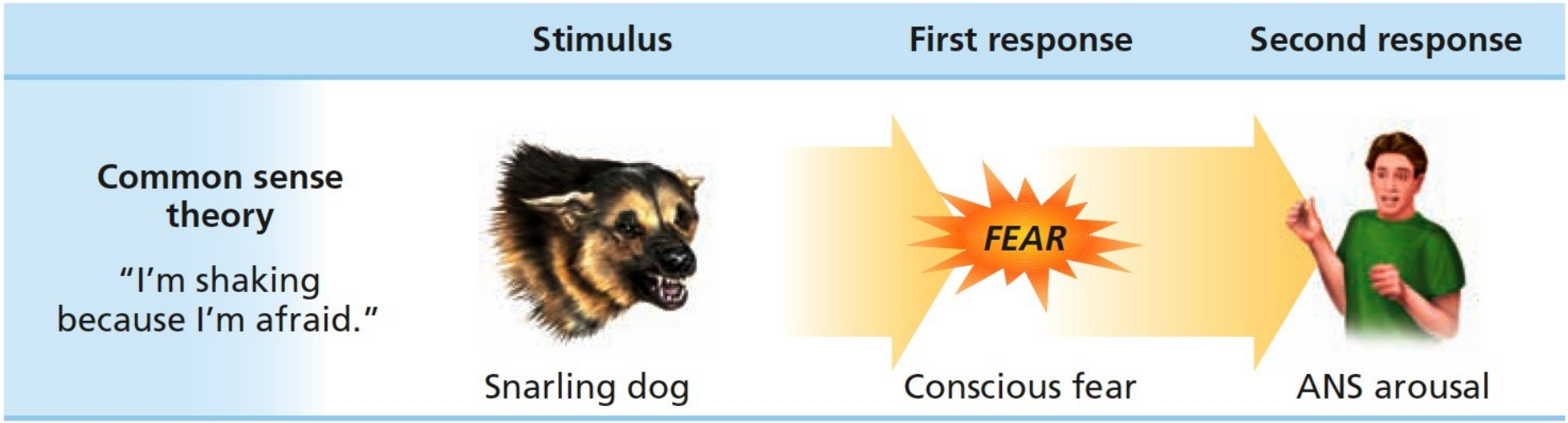
f. 

# Common Sense Theory of Emotion

LO 9.7 Three Elements of Emotion

- Common sense theory of emotion: a stimulus leads to an emotion, which then leads to bodily arousal

**Figure 9.7 Common Sense Theory of Emotion**

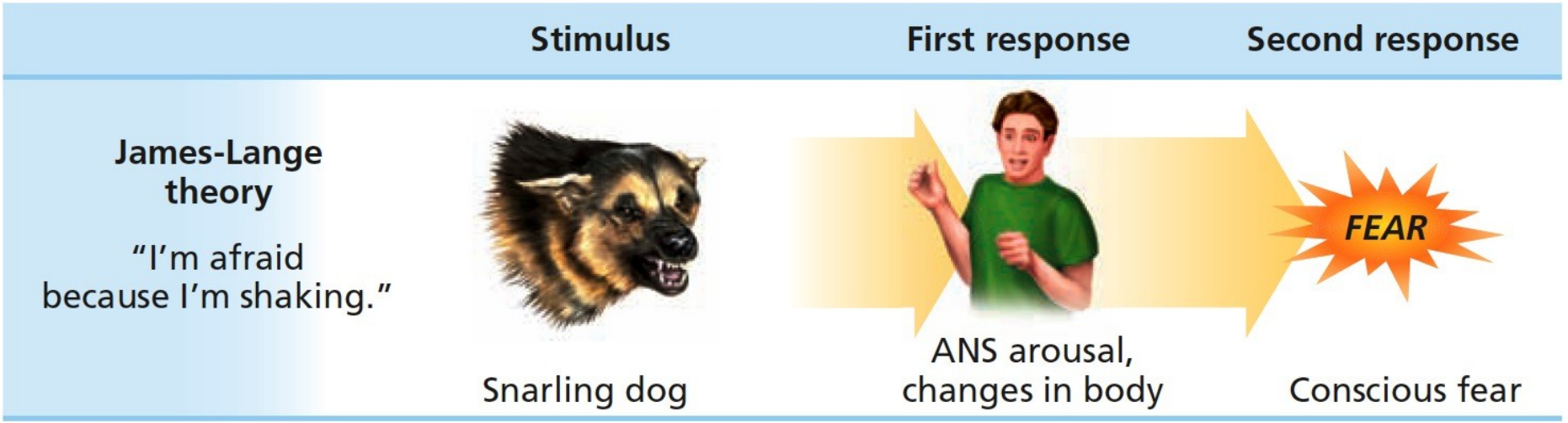


# James-Lange Theory of Emotion

LO 9.8 James-Lange and Cannon-Bard Theories of Emotion

- James-Lange theory of emotion: a physiological reaction leads to the labeling of an emotion

**Figure 9.8 James-Lange Theory of Emotion**

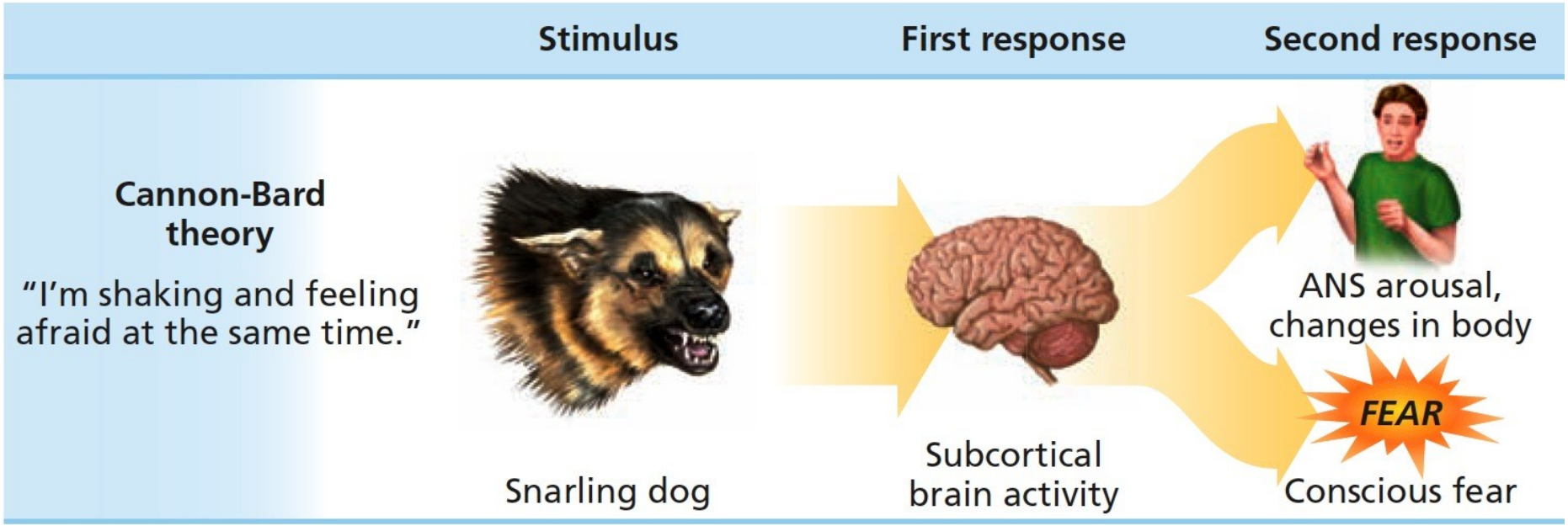


# Cannon-Bard Theory of Emotion

LO 9.8 James-Lange and Cannon-Bard Theories of Emotion

- Cannon-Bard theory of emotion: the physiological reaction and the emotion are assumed to occur at the same time

**Figure 9.9 Cannon-Bard Theory of Emotion**

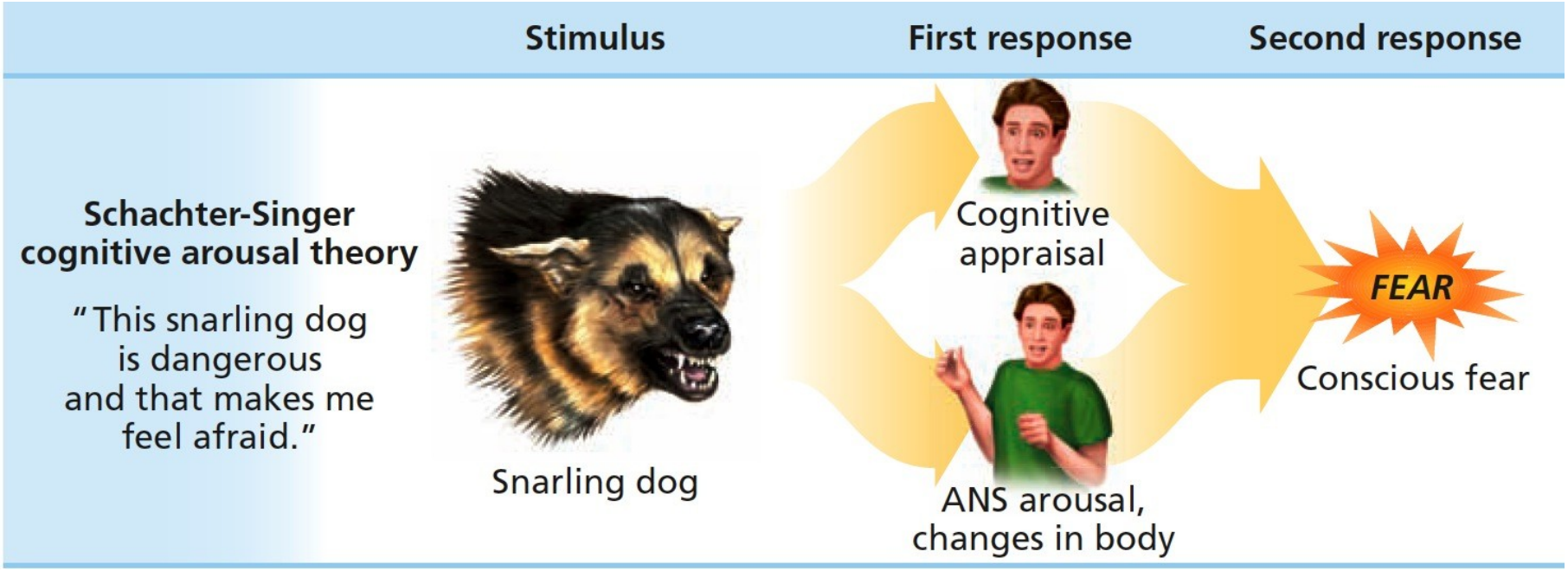


# Cognitive Arousal Theory of Emotion

LO 9.9 Cognitive Arousal Theory, Facial Feedback Hypothesis and Cognitive-Mediational Theory

- Cognitive arousal theory: both the physical arousal and the labeling of that arousal based on cues from the environment must occur before the emotion is experienced

**Figure 9.10 Schachter-Singer Cognitive Arousal Theory of Emotion**
Schachter and Singer's cognitive arousal theory is similar to the James-Lange theory but adds the element of cognitive labeling of the arousal. In this theory, a stimulus leads to both bodily arousal and the labeling of that arousal (based on the surrounding context), which leads to the experience and labeling of the emotional reaction.



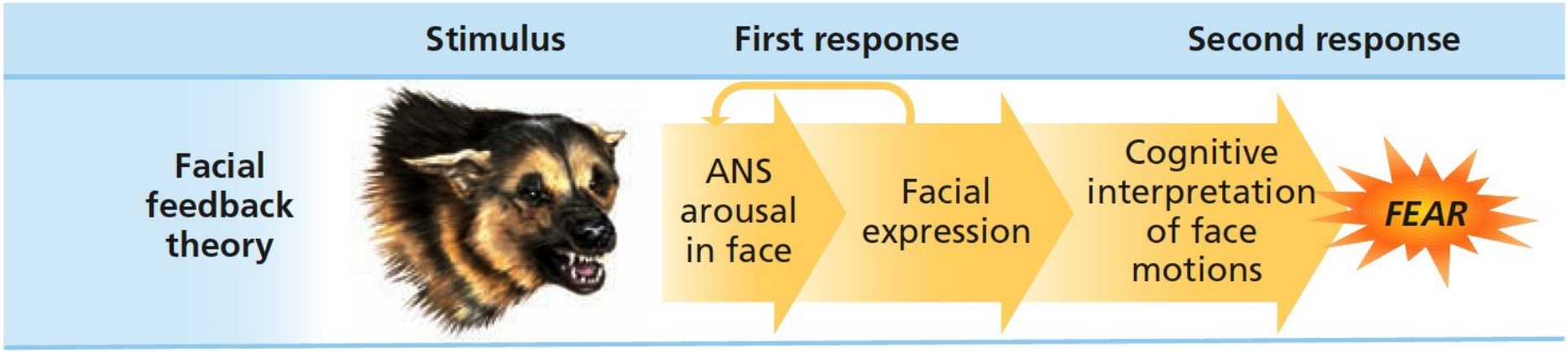
# Facial Feedback Hypothesis

LO 9.9 Cognitive Arousal Theory, Facial Feedback Hypothesis and Cognitive-Mediational Theory

- Facial feedback hypothesis: facial expressions provide feedback to the brain concerning the emotion being expressed, which in turn causes and intensifies the emotion

**Figure 9.11 Facial Feedback Theory of Emotion**

In the facial feedback theory of emotion, a stimulus such as this snarling dog causes arousal and a facial expression. The facial expression then provides feedback to the brain about the emotion. The brain then interprets the emotion and may also intensify it.

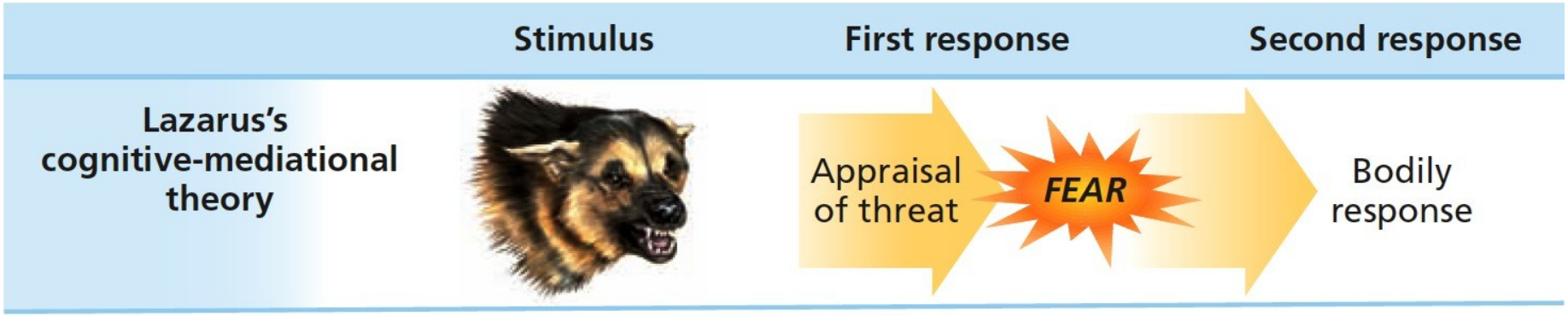


# Cognitive Mediational Theory

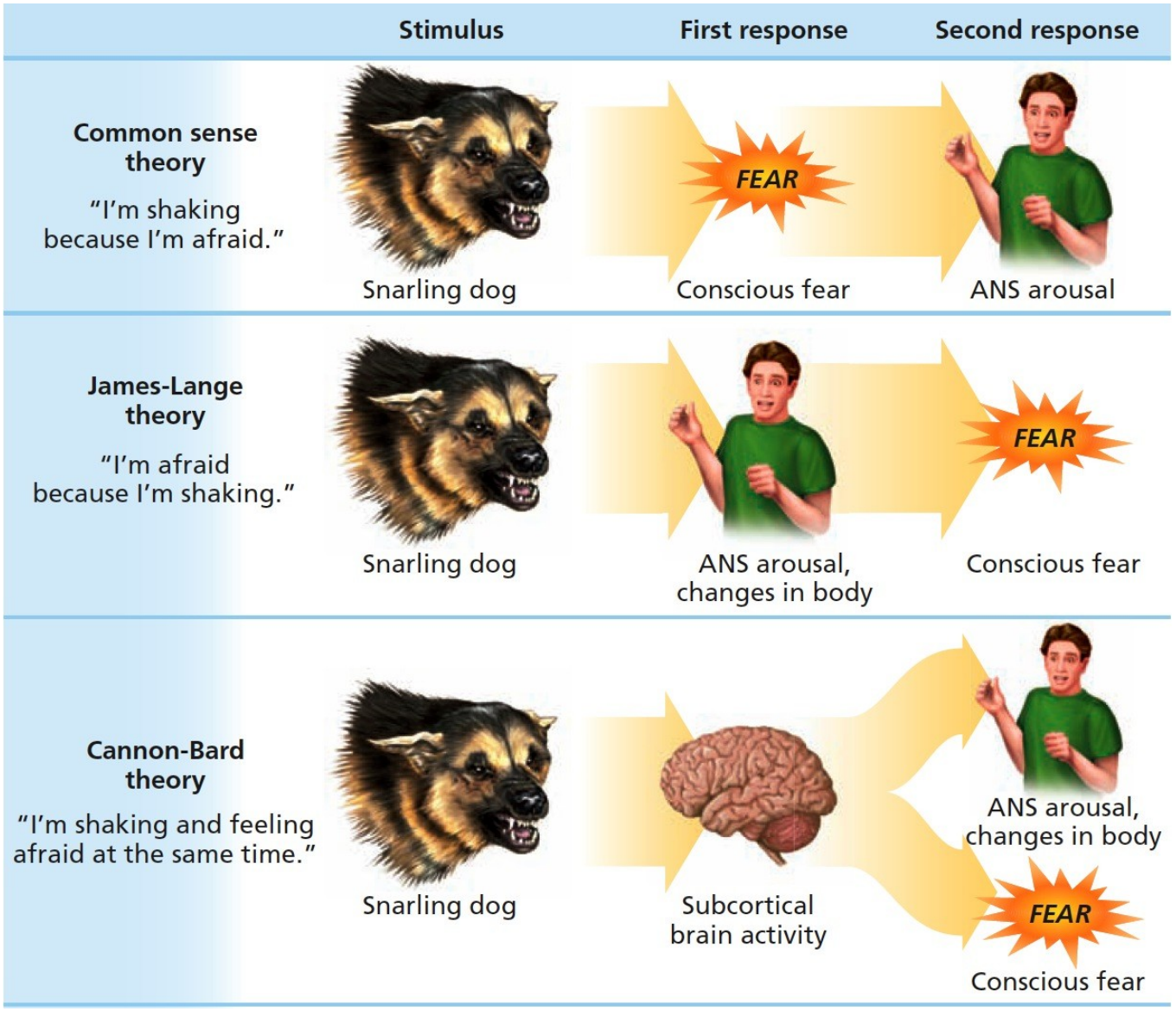
LO 9.9 Cognitive Arousal Theory, Facial Feedback Hypothesis and Cognitive-Mediational Theory

- Cognitive-mediational theory: a stimulus must be interpreted (appraised) by a person in order to result in a physical response and an emotional reaction

**Figure 9.12 Lazarus's Cognitive-Mediational Theory of Emotion**
In Lazarus's cognitive-mediational theory of emotion, a stimulus causes an immediate appraisal (e.g., "The dog is snarling and not behind a fence, so this is dangerous"). The cognitive appraisal results in an emotional response, which is then followed by the appropriate bodily response.



## Figure 9.13 Comparison of Theories of Emotion



## Figure 9.13 Comparison of Theories of Emotion (Cont'd)